

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/803,195A
Source: JFWO
Date Processed by STIC: 09/13/2005

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:56

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

```

1 <110> APPLICANT: Feldmann, Richard J.
3 <120> TITLE OF INVENTION: Symmetry relationships between pairs of Connectrons
5 <130> FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
C--> 7 <140> CURRENT APPLICATION NUMBER: US/10/803,195A
C--> 8 <141> CURRENT FILING DATE: 2004-03-18
10 <160> NUMBER OF SEQ ID NOS: 120
12 <170> SOFTWARE: Proprietary
15 <210> SEQ ID NO: 1
17 <211> LENGTH: 182
18 <212> TYPE: DNA
19 <213> ORGANISM: Escherichia coli K-12 MG1655 complete genome
21 <220> FEATURE:
22 <222> LOCATION: (4505026)...(4505207)
23 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = pos CtronObjNum = 7435
26 <400> SEQUENCE: 1
27 ctgtagattc aatctgtcaa tgcaacaccc ctttcaatta tctctttcgg tgttttgaac 60
28 ttcagtgtct ttctcggctc gttgttttagc tgagcagcaa ccagatctag ttcagtgtga 120
29 gtatattggg caagacatgt ctttttagga aagtactgcc gaattagccc atttgtgttc 180
30 tc 182
33 <210> SEQ ID NO: 2
35 <211> LENGTH: 182
36 <212> TYPE: DNA
37 <213> ORGANISM: Escherichia coli K-12 MG1655 complete genome
39 <220> FEATURE:
40 <222> LOCATION: (279155)...(279336)
41 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 508
44 <400> SEQUENCE: 2
45 ctgtagattc aatctgtcaa tgcaacaccc ctttcaatta tctctttcgg tgttttgaac 60
46 ttcagtgtct ttctcggctc gttgttttagc tgagcagcaa ccagatctag ttcagtgtga 120
47 gtatattggg caagacatgt ctttttagga aagtactgcc gaattagccc atttgtgttc 180
48 tc 182
51 <210> SEQ ID NO: 3
53 <211> LENGTH: 171
54 <212> TYPE: DNA
55 <213> ORGANISM: Escherichia coli K-12 MG1655 complete genome
57 <220> FEATURE:
58 <222> LOCATION: (4505031)...(4505201)
59 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = pos CtronObjNum = 7435
62 <400> SEQUENCE: 3
63 gattcaatct gtcaatgcaa caccctttc aattatctct ttcgggtgttt tgaacttcag 60
64 tgtctttctc ggtctgttgt ttagctgagc agcaaccaga tctagttcat gttgagtata 120
65 ttgggcaaga catgtctttt taggaaagta ctgccgaatt agcccatttg t 171
68 <210> SEQ ID NO: 4

```

RAW SEQUENCE LISTING

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:56

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

```

70 <211> LENGTH: 171
71 <212> TYPE: DNA
72 <213> ORGANISM: Escherichia coli K-12 MG1655 complete genome
74 <220> FEATURE:
75 <222> LOCATION: (270811)...(270981)
76 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 472
79 <400> SEQUENCE: 4
80 gattcaatct gtcaatgcaa cacccttttc aattatctct ttcggtgttt tgaacttcag      60
81 tgtctttctc ggtctgttgt ttagctgagc agcaaccaga tctagttcat gttgagtata      120
82 ttgggcaaga catgtctttt taggaaagta ctgccgaatt agcccatttg t              171
85 <210> SEQ ID NO: 5
87 <211> LENGTH: 67
88 <212> TYPE: DNA
89 <213> ORGANISM: Sulfolobus tokodaii complete genome
91 <220> FEATURE:
92 <222> LOCATION: (1178996)...(1179062)
93 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 3986
96 <400> SEQUENCE: 5
97 tgtaccccct tcaagtaagc ctcatttaag ggagttttct cccttgaata aactaccggg      60
98 tacatga                                           67
101 <210> SEQ ID NO: 6
103 <211> LENGTH: 67
104 <212> TYPE: DNA
105 <213> ORGANISM: Sulfolobus tokodaii complete genome
107 <220> FEATURE:
108 <222> LOCATION: (61903)...(61969)
109 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = pos CtronObjNum = 447
112 <400> SEQUENCE: 6
113 tgtaccccct tcaagtaagc ctcatttaag ggagttttct cccttgaata aactaccggg      60
114 tacatga                                           67
117 <210> SEQ ID NO: 7
119 <211> LENGTH: 85
120 <212> TYPE: DNA
121 <213> ORGANISM: Sulfolobus tokodaii complete genome
123 <220> FEATURE:
124 <222> LOCATION: (1178963)...(1179047)
125 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 3986
128 <400> SEQUENCE: 7
129 ttgtaatatt atatcagttt acttctaata tactgtaccc ccttcaagta agcctcattt      60
130 aaggaggattt tctcccttga ataaa                                           85
133 <210> SEQ ID NO: 8
135 <211> LENGTH: 85
136 <212> TYPE: DNA
137 <213> ORGANISM: Sulfolobus tokodaii complete genome
139 <220> FEATURE:
140 <222> LOCATION: (123599)...(123683)
141 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = pos CtronObjNum = 646
144 <400> SEQUENCE: 8
145 ttgtaatatt atatcagttt acttctaata tactgtaccc ccttcaagta agcctcattt      60

```

RAW SEQUENCE LISTING

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:56

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

```

146 aaggggagttt tctcccttga ataaa 85
149 <210> SEQ ID NO: 9
151 <211> LENGTH: 117
152 <212> TYPE: DNA
153 <213> ORGANISM: Saccharomyces cerevisiae complete genome
155 <220> FEATURE:
156 <222> LOCATION: (975950)...(976066)
157 <223> OTHER INFORMATION: Chromosome = 15 Contig = 15 Strand = pos CtronObjNum = 28455
160 <400> SEQUENCE: 9
161 ttactagtat attatcatat acggtgttag aagatgacgc aaatgatgag aaatagtcac 60
162 ctaaattagt ggaagctgaa acgcaaggat tgataatgta ataggatcaa tgaatat 117
165 <210> SEQ ID NO: 10
167 <211> LENGTH: 117
168 <212> TYPE: DNA
169 <213> ORGANISM: Saccharomyces cerevisiae complete genome
171 <220> FEATURE:
172 <222> LOCATION: (165888)...(166004)
173 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 419
176 <400> SEQUENCE: 10
177 ttactagtat attatcatat acggtgttag aagatgacgc aaatgatgag aaatagtcac 60
178 ctaaattagt ggaagctgaa acgcaaggat tgataatgta ataggatcaa tgaatat 117
181 <210> SEQ ID NO: 11
183 <211> LENGTH: 117
184 <212> TYPE: DNA
185 <213> ORGANISM: Saccharomyces cerevisiae complete genome
187 <220> FEATURE:
188 <222> LOCATION: (975950)...(976066)
189 <223> OTHER INFORMATION: Chromosome = 15 Contig = 15 Strand = pos CtronObjNum = 28455
192 <400> SEQUENCE: 11
193 ttactagtat attatcatat acggtgttag aagatgacgc aaatgatgag aaatagtcac 60
194 ctaaattagt ggaagctgaa acgcaaggat tgataatgta ataggatcaa tgaatat 117
197 <210> SEQ ID NO: 12
199 <211> LENGTH: 117
200 <212> TYPE: DNA
201 <213> ORGANISM: Saccharomyces cerevisiae complete genome
203 <220> FEATURE:
204 <222> LOCATION: (160257)...(160373)
205 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 355
208 <400> SEQUENCE: 12
209 ttactagtat attatcatat acggtgttag aagatgacgc aaatgatgag aaatagtcac 60
210 ctaaattagt ggaagctgaa acgcaaggat tgataatgta ataggatcaa tgaatat 117
213 <210> SEQ ID NO: 13
215 <211> LENGTH: 68
216 <212> TYPE: DNA
217 <213> ORGANISM: Caenorhabditis elegans complete genome
219 <220> FEATURE:
220 <222> LOCATION: (221205)...(221272)
221 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 380
224 <400> SEQUENCE: 13

```

RAW SEQUENCE LISTING

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:56

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

```

225 gggaattgct tcgtcaaatg atcgacggag ggcttttggc catctgcaag gataaactcg      60
226 catgtcga                                           68
229 <210> SEQ ID NO: 14
231 <211> LENGTH: 68
232 <212> TYPE: DNA
233 <213> ORGANISM: Caenorhabditis elegans complete genome
235 <220> FEATURE:
236 <222> LOCATION: (250979)...(251046)
237 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 433
240 <400> SEQUENCE: 14
241 gggaattgct tcgtcaaatg atcgacggag ggcttttggc catctgcaag gataaactcg      60
242 catgtcga                                           68
245 <210> SEQ ID NO: 15
247 <211> LENGTH: 68
248 <212> TYPE: DNA
249 <213> ORGANISM: Caenorhabditis elegans complete genome
251 <220> FEATURE:
252 <222> LOCATION: (221180)...(221247)
253 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 380
256 <400> SEQUENCE: 15
257 gagctcgcaa caccggccga gcagcgggaa ttgcttcgtc aaatgatcga cggaggggctt      60
258 ttggccat                                           68
261 <210> SEQ ID NO: 16
263 <211> LENGTH: 68
264 <212> TYPE: DNA
265 <213> ORGANISM: Caenorhabditis elegans complete genome
267 <220> FEATURE:
268 <222> LOCATION: (214904)...(214971)
269 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = neg CtronObjNum = 354
272 <400> SEQUENCE: 16
273 gagctcgcaa caccggccga gcagcgggaa ttgcttcgtc aaatgatcga cggaggggctt      60
274 ttggccat                                           68
277 <210> SEQ ID NO: 17
279 <211> LENGTH: 58
280 <212> TYPE: DNA
281 <213> ORGANISM: Homo sapiens complete genome
283 <220> FEATURE:
284 <222> LOCATION: (16381)...(16438)
285 <223> OTHER INFORMATION: Chromosome = 4 Contig = 1 Strand = pos CtronObjNum = 1331
288 <400> SEQUENCE: 17
289 ggtgagtacc tttctatgaa ggtgataagg atccactgag tcttccatat aaagatca      58
292 <210> SEQ ID NO: 18
294 <211> LENGTH: 58
295 <212> TYPE: DNA
296 <213> ORGANISM: Homo sapiens complete genome
298 <220> FEATURE:
299 <222> LOCATION: (500217)...(500274)
300 <223> OTHER INFORMATION: Chromosome = 4 Contig = 1 Strand = pos CtronObjNum = 1542
303 <400> SEQUENCE: 18

```

RAW SEQUENCE LISTING

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:56

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

```

304 ggtgagtacc tttctatgaa ggtgataagg atccactgag tcttccatat aaagatca      58
307 <210> SEQ ID NO: 19
309 <211> LENGTH: 58
310 <212> TYPE: DNA
311 <213> ORGANISM: Homo sapiens complete genome
313 <220> FEATURE:
314 <222> LOCATION: (16381)...(16438)
315 <223> OTHER INFORMATION: Chromosome = 4 Contig = 1 Strand = pos CtronObjNum = 1331
318 <400> SEQUENCE: 19
319 ggtgagtacc tttctatgaa ggtgataagg atccactgag tcttccatat aaagatca      58
322 <210> SEQ ID NO: 20
324 <211> LENGTH: 58
325 <212> TYPE: DNA
326 <213> ORGANISM: Homo sapiens complete genome
328 <220> FEATURE:
329 <222> LOCATION: (504937)...(504994)
330 <223> OTHER INFORMATION: Chromosome = 4 Contig = 1 Strand = pos CtronObjNum = 1559
333 <400> SEQUENCE: 20
334 ggtgagtacc tttctatgaa ggtgataagg atccactgag tcttccatat aaagatca      58
337 <210> SEQ ID NO: 21
339 <211> LENGTH: 94
340 <212> TYPE: DNA
341 <213> ORGANISM: Arabidopsis thaliana complete genome
343 <220> FEATURE:
344 <222> LOCATION: (21590870)...(21590960)
345 <223> OTHER INFORMATION: Chromosome = 5 Contig = 1 Strand = neg CtronObjNum = 29822
348 <400> SEQUENCE: 21
349 tgttgaaagt taaacttgat tttgaatcaa gtttaattat tggatcaatt atccaataat      60
350 taattatggc caaatccaag ttctagagtt ttct                                94
353 <210> SEQ ID NO: 22
355 <211> LENGTH: 94
356 <212> TYPE: DNA
357 <213> ORGANISM: Arabidopsis thaliana complete genome
359 <220> FEATURE:
360 <222> LOCATION: (3780765)...(3780858)
361 <223> OTHER INFORMATION: Chromosome = 1 Contig = 1 Strand = pos CtronObjNum = 7951
364 <400> SEQUENCE: 22
365 tgttgaaagt taaacttgat tttgaatcaa gtttaattat tggatcaatt atccaataat      60
366 taattatggc caaatccaag ttctagagtt ttct                                94
369 <210> SEQ ID NO: 23
371 <211> LENGTH: 79
372 <212> TYPE: DNA
373 <213> ORGANISM: Arabidopsis thaliana complete genome
375 <220> FEATURE:
376 <222> LOCATION: (21590870)...(21590950)
377 <223> OTHER INFORMATION: Chromosome = 5 Contig = 1 Strand = neg CtronObjNum = 29822
380 <400> SEQUENCE: 23
381 tgttgaaagt taaacttgat tttgaatcaa gtttaattat tggatcaatt atccaataat      60
382 taattatggc caaatccaag                                79

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/803,195A

DATE: 09/13/2005
TIME: 08:57:57

Input Set : N:\DA\pto.da.txt
Output Set: N:\CRF4\09132005\J803195A.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 27,28,29,30
Seq#:2; Line(s) 45,46,47,48
Seq#:3; Line(s) 63,64,65
Seq#:4; Line(s) 80,81,82
Seq#:5; Line(s) 97,98
Seq#:6; Line(s) 113,114
Seq#:7; Line(s) 129,130
Seq#:8; Line(s) 145,146
Seq#:9; Line(s) 161,162
Seq#:10; Line(s) 177,178
Seq#:11; Line(s) 193,194
Seq#:12; Line(s) 209,210
Seq#:13; Line(s) 225,226
Seq#:14; Line(s) 241,242
Seq#:15; Line(s) 257,258
Seq#:16; Line(s) 273,274
Seq#:17; Line(s) 289
Seq#:18; Line(s) 304
Seq#:19; Line(s) 319
Seq#:20; Line(s) 334
Seq#:21; Line(s) 349,350
Seq#:22; Line(s) 365,366
Seq#:23; Line(s) 381,382
Seq#:24; Line(s) 397,398
Seq#:25; Line(s) 413
Seq#:26; Line(s) 428
Seq#:27; Line(s) 443
Seq#:28; Line(s) 458
Seq#:29; Line(s) 473
Seq#:30; Line(s) 488
Seq#:31; Line(s) 503
Seq#:32; Line(s) 518
Seq#:33; Line(s) 533
Seq#:34; Line(s) 548
Seq#:35; Line(s) 563
Seq#:36; Line(s) 578
Seq#:37; Line(s) 593,594,595,596
Seq#:38; Line(s) 611,612,613,614
Seq#:39; Line(s) 629
Seq#:40; Line(s) 644
Seq#:41; Line(s) 659,660
Seq#:42; Line(s) 675,676
Seq#:43; Line(s) 691,692

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 09/13/2005
PATENT APPLICATION: **US/10/803,195A** TIME: 08:57:57

Input Set : N:\DA\pto.da.txt
Output Set: N:\CRF4\09132005\J803195A.raw

Seq#:44; Line(s) 707,708
Seq#:45; Line(s) 723,724
Seq#:46; Line(s) 739,740
Seq#:47; Line(s) 755,756
Seq#:48; Line(s) 771,772
Seq#:49; Line(s) 787
Seq#:50; Line(s) 802
Seq#:51; Line(s) 817

VERIFICATION SUMMARY

DATE: 09/13/2005

PATENT APPLICATION: US/10/803,195A

TIME: 08:57:57

Input Set : N:\DA\pto.da.txt

Output Set: N:\CRF4\09132005\J803195A.raw

L:7 M:270 C: Current Application Number differs, Replaced Current Application Number

L:8 M:271 C: Current Filing Date differs, Replaced Current Filing Date